

Work Order ID 166329

Friday, September 15, 2017 10:30:55 AM

166329

Page 1

Item ID: D4034-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Upper Rib Assembly
 Start Date: 9/15/2017 Start Qty: 5.00 ***5*** **4** **DAS 21 9-89** Cust Item ID:
 Required Date: 9/19/2017 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: uy Date: SEP 15 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4034	C

100 Weld per dwg A/R S.S. rod Batch: 135068 0.00

100

Large Fab

Large Fab

Memo

3.30

1- Assemble ribs to hoop and weld as per dwg DT9564

2- Weld bushing in rib and grind weld flush as per dwg

4 2017-09-19

110

QC9- Inspect visual per QSI004- Fusion Welds 0.00

110

QC

Quality Control

Memo

0.00

4

SEP 19 2017

DAS 24 9-89

120

QC5- Inspect part completeness to step on W/O 0.00

120

QC

Quality Control

Memo

0.10

4

SEP 19 2017

DAS 24 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER : _____							
Misidentified ☐	☐	Past Due								

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>WA4</u> Memo LOCATION: WA004	0.00 0.05				<u>4</u>	<u>SEP 19 2017</u>		DAS 24 9-89
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.50						<u>17/9/2017</u>	DAS 21 9-89 SEP 19 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
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Misidentified ☐	Past Due ☐																																																														

Picklist Print

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Page 1

Work Order ID: 166329

166329

Parent Item: D4034-041

D4034-041

Parent Item Name: Aft Upper Rib Assembly

Start Date: 9/15/2017

Required Date: 9/19/2017

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP RevA: new issue DD 09.11.23 verified by:EC IPP Rev:B as per dwg revA 10.03.15 verified by:EC IPP Rev:C 11.01.19 AS PER DWG REV.B DD VERF:EC IPP Rev:D 13.03.14 AS PER DWG REV.pc1 DD VERF:JLM IPP Rev:E 13.06.21 DWG REV.C DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4034-1 *D4034-1* Rib		Manufactured	No			100	Each	20.0000	1	5			
										**	DE DG 2017-09-18		
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				WA004		20	B165479 →	4					
					161999	4							
					165479	16							
D4034-3 *D4034-3* Rib		Manufactured	No			100	Each	20.0000	1	5			
										**	DG 2017-09-18		
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				WA004		20	B165911 →	2					
					164636	4							
					165911	16	B1651636 →	2					
D4021-7 *D4021-7* Hoop		Manufactured	No			100	Each	8.0000	1	5			
										**	DG 2017-09-18		
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				WA004		8	B165365 →	4					
					165365	8							

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
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								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

Picklist Print

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Work Order ID: 166329

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Parent Item: D4034-041

D4034-041

Parent Item Name: Aft Upper Rib Assembly

Start Date: 9/15/2017

Required Date: 9/19/2017

Start Qty: 5.00

Required Qty: 5.00

✓ D4021-9

Manufactured No

100

Each

79.0000

4

20

D4021-9

**

Bushing

DC 2017-09-18

Location

Loc Qty

Loc Code

WA004

79

79

165362

B165362 → 16

DQA: _____ Date: _____



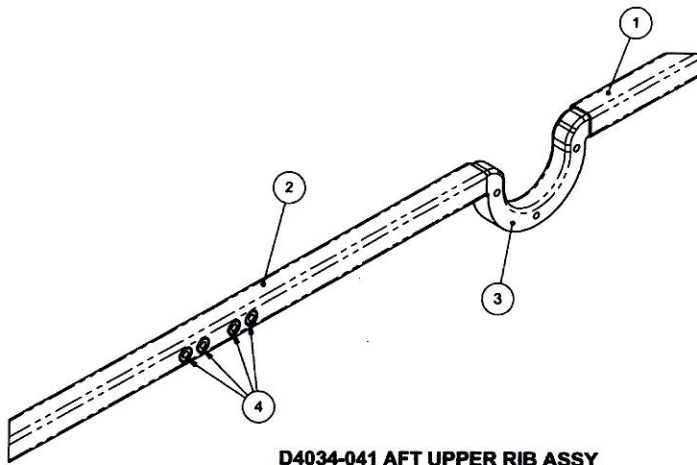
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

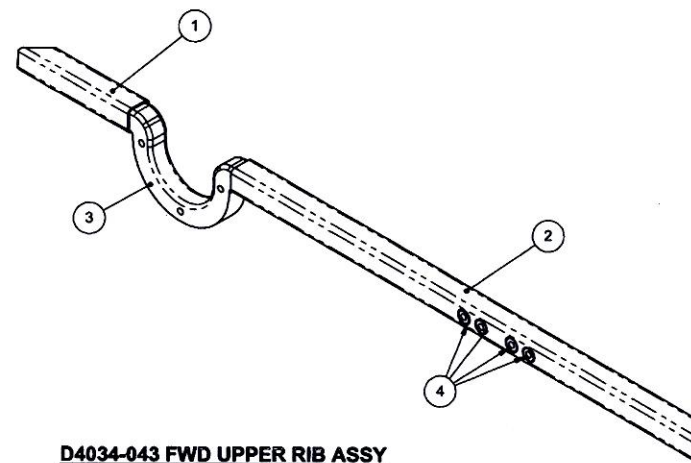
Work Order update only ☐

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☐ OTHER : _____									

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D4034-041	AFT UPPER RIB ASSY
		X	D4034-043	FWD UPPER RIB ASSY
1	1	1	D4034-1	RIB
2	1	1	D4034-3	RIB
3	1	1	D4021-7	HOOP
4	4	4	D4021-9	BUSHING



D4034-041 AFT UPPER RIB ASSY



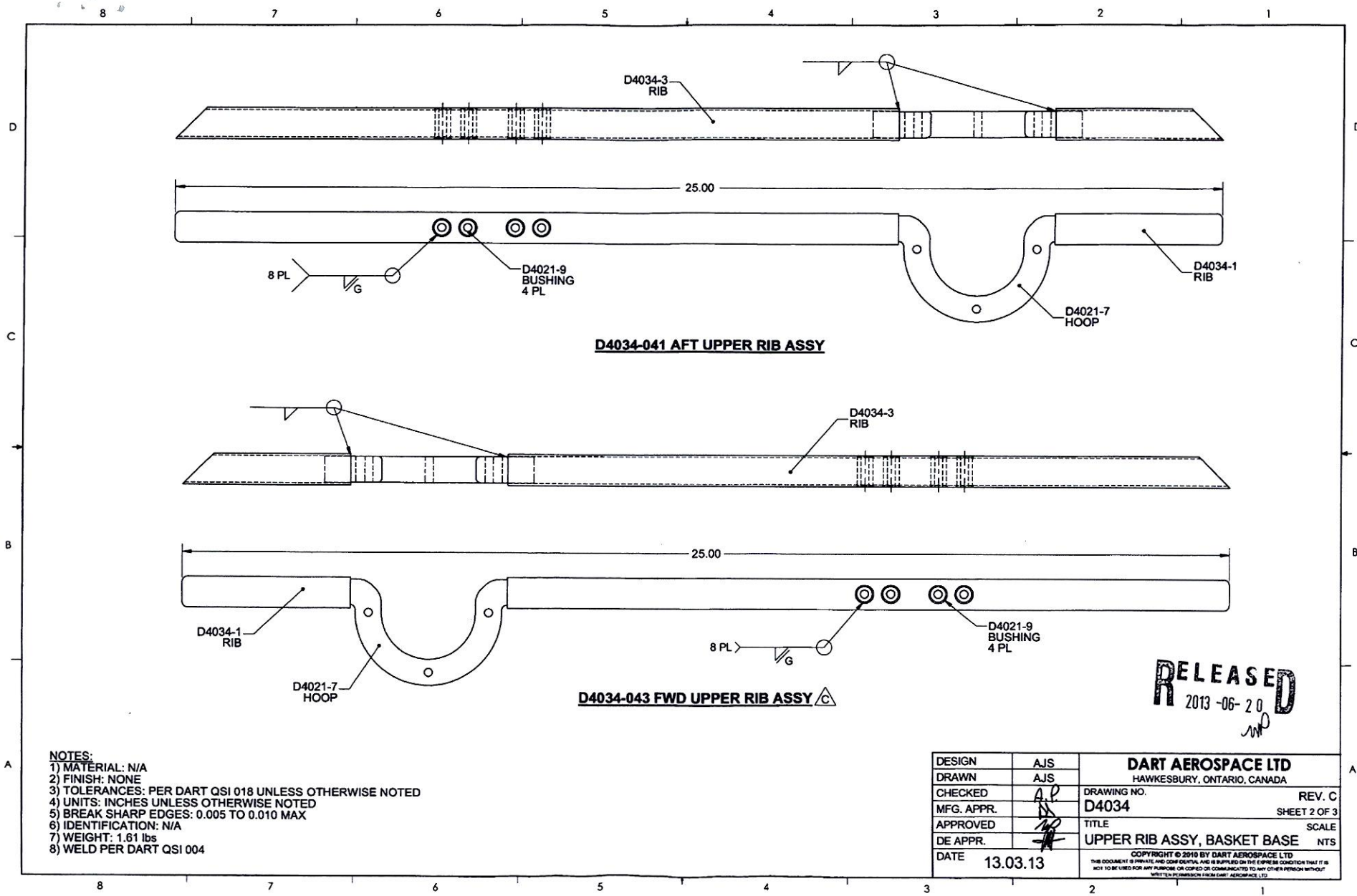
D4034-043 FWD UPPER RIB ASSY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 166-329

my SEP 15 2017

RELEASED
R 2013-06-20
MD

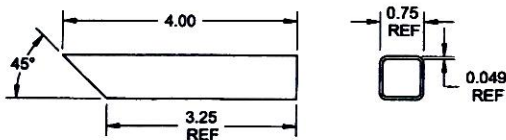
C	-043 REDESIGNED AS MIRROR IMAGE OF -041, -5 DELETED. D2327-3 DELETED. REASON PROP ARM NO LONGER OFFERED.		AJS	13.03.13
B	ADDITIONAL HOLES ADDED ON D4034-3 RIB		SC	10.12.20
A	NEW ISSUE		AJS	10.03.04
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	AJS			
CHECKED	A.P.		DRAWING NO.	REV. C
MFG. APPR.	NS		D4034	SHEET 1 OF 3
APPROVED	AP		TITLE	SCALE
DE APPR.	H	UPPER RIB ASSY, BASKET BASE	NTS	
DATE	13.03.13	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		



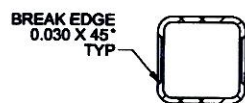
- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 1.61 lbs
 - 8) WELD PER DART QSI 004

RELEASED
2013-06-20

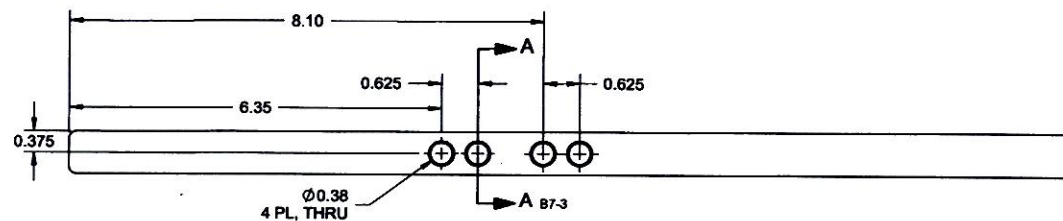
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AP	DRAWING NO. D4034	REV. C
MFG. APPR.	AS	SHEET 2 OF 3	
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	UPPER RIB ASSY, BASKET BASE	NTS
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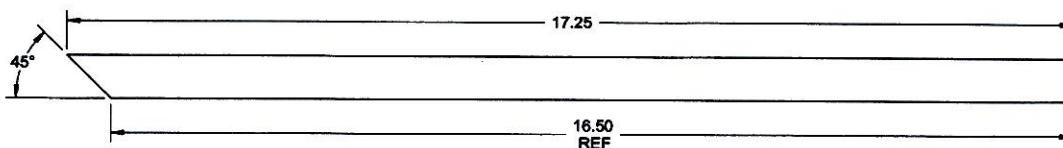
D4034-1 RIB



SECTION A-A C3-3



D4034-3 RIB



RELEASED
2013-06-28

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL
REF DART SPEC. M304TS0.750W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -1: 0.13 lbs
-3: 0.62 lbs

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. C
MFG. APPR.	AS	D4034	SHEET 3 OF 3
APPROVED	AS	TITLE	SCALE
DE APPR.	AS	UPPER RIB ASSY, BASKET BASE	NTS
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